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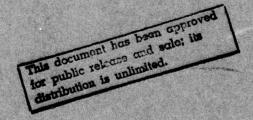
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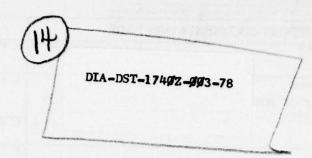
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BIBLIOGRAPHY OF SOVIET LASER DEVELOPMENTS,

Number 29,

MAY - JUNE 1977,

Date of Report

May 12, 1978

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12 105 p.

Vice Director for Production Defense Intelligence Agency

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SECURITY CLASSIFICATION OF THIS PAGE (When Date Entered)

REPORT DOCUMENTATION	ON PAGE	BEFORE COMPLETING FORM
1. REPORT NUMBER	2. GOVT ACCESSION NO.	3. RECIPIENT'S CATALOG NUMBER
4. TITLE (and Subtitle) BIBLIOGRAPHY OF SOVIET LASER DEV MAY - JUNE 1977	ELOPMENTS, No. 29	S. TYPE OF REPORT & PERIOD COVERED
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7. AUTHOR(a)		8. CONTRACT OR GRANT HUMBER(+)
9. PERFORMING ORGANIZATION NAME AND ADDR	RESS	10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS
11. CONTROLLING OFFICE NAME AND ADDRESS Defense Intelligence Agency		12. REPORT DATE May 12, 1978
Directorate for Scientific and T Intelligence, ATTN: DT-1A	echnical	13. NUMBER OF PAGES 97
14. MONITORING AGENCY NAME & ADDRESS(II dil	ferent from Controlling Office)	15. SECURITY CLASS. (of this report) UNCLASSIFIED
		154. DECLASSIFICATION/DOWNGRADING SCHEDULE
16. DISTRIBUTION STATEMENT (of this Report)		\ \
Approved for public release; di	stribution unlimite	d
17. Distribution Statement (of the from	he abstract entered report)	in Block 20, if different
18. Supplementary Notes		
19. KEY WORDS		
Solid State Lasers, Liquid Laser Nonlinear optics, Spectroscopy of	of Laser Materials,	Ultrashort Pulse Generation,

Solid State Lasers, Liquid Lasers, Gas Lasers, Chemical Lasers, Laser Components, Nonlinear optics, Spectroscopy of Laser Materials, Ultrashort Pulse Generation, Gamma Lasers, Laser Theory, Laser Biological Effects, Laser Communications, Laser Beam Propagation, Laser Computer Technology, Holography, Laser Chemical Effects, Laser Parameters, Laser Measurement Applications, Laser-Excited Optical Effects, Laser Beam-Target Interaction, Laser Plasma

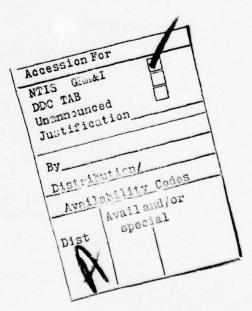
20. ABSTRACT

This is the Soviet Laser Bibliography for May-June 1977 and is No. 29 in a continuing series on Soviet laser developments. The coverage includes basic research on solid state, liquid, gas, and chemical lasers; components; nonlinear optics; spectroscopy of laser materials; ultrashort pulse generation; theoretical aspects of advanced lasers; and general laser theory. Laser applications are listed under biological effects; communications; beam propagation; computer technology; holography; laser-induced chemical reactions; measurement of laser parameters; laser measurement applications; laser-excited optical effects; beam-target interaction; and plasma generation and diagnostics.

Introduction

This bibliography has been compiled under an interagency agreement as a continuing effort to document current Soviet-bloc developments in the quantum electronics field. The period covered is May-June 1977, and includes all significant laser-related articles received by us in that interval. The bulk of the entries come from the approximately 30 periodicals which are known to publish the most significant findings in Soviet laser technology. Citations from the Russian Reference Journals are included, as well as entries from the CIRC data base not otherwise covered. Laser items from the popular or semipopular press are generally omitted.

For convenience we have abbreviated frequently cited source names; a source abbreviations list and an author index are included. All sources cited with no parenthetical notation are available at the Library of Congress. A parenthetical entry (RZh, KL), indicates the secondary source in which the citation was found as a bibliographic entry or abstract, but for which the original source is not currently available at the Library. The authors' affiliations are indicated by the numbers in parentheses following the authors' names in the text and are listed in the Author Affiliations List. New affiliations are assigned a new number and are added to a cumulative list which includes all affiliations from 1969 to the present. Only those affiliations which appear in this issue are listed in this issue's Author Affiliations List.



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IV. SOURCE ABBREVIATIONS

(CIRC Codens)

BWAT	(BWATA)	Biuletyn Wojskowej akademii technicznej J. Dabrowskiego
DAN Arm	(DANAA)	Akademiya nauk Armyanskoy SSR. Doklady
DAN B	(DBLRA)	Akademiya nauk Belorusskoy SSR. Doklady
DAN SSSR	(DANKA)	Akademiya nauk SSSR. Doklady
EOM	(EOBMA)	Elektronnaya obrabotka materialov
FA10	(IFAOA)	Akademiya nauk SSSR. Izvestiya. Fizika atmosfery i okeana
FG1V	(FGVZA)	Fizika goreniya i vzryva
Fikhom	(FKOMA)	Fizika i khimiya obrabotki materialov
FTP	(FTPPA)	Fizika i tekhnika poluprovodnikov
FTT	(FTVTA)	Fizika tverdogo tela
IAN Arm	(IAAFA)	Akademiya nauk Armyanskoy SSR. Izvestiya. Fizika
IAN Uz	(IUZFA)	Akademiya nauk Uzbekskoy SSR. Izvestiya. Seriya fiziko-matematicheskikh nauk
IT	(IZTEA)	Izmeritel'naya tekhnika
IVUZ Fiz	(IVUFA)	Izvestiya vysshikh uchebnykh zavedeniy. Fizika
IVUZ Priboro	(IVUBA)	Izvestiya vysshikh uchebnykh zavedeniy. Priborostroyeniye
IVUZ Radioelek	tr (IVUZB)	Izvestiya vysshikh uchebnykh zavedeniy. Radioelektronika
IVUZ Radiofiz	(IVYRA)	Izvestiya vysshikh uchebnykh zavedeniy. Radiofizika
KE	(KVEKA)	Kvantovaya elektronika
KhVE	(KHVKA)	Khimiya vysokikh energiy
KL	(KNLTA)	Knizhnaya letopis'
Kristal	(KRISA)	Kristallografiya
KSpF	(KRSFA)	Kratkiye soobshcheniya po fizike
Ois	(OPSPA)	Optika i spektroskopiya

OMP	(OPMPA)	Optiko-mekhanicheskaya promyshlennost'
Otkr izobr	(OIPOB)	Otkrytiya, izobreteniya, promyshlennyye obraztsy, tovarnyye znaki
PTE	(PRTEA)	Pribory i tekhnika eksperimenta
RiE	(RAELA)	Radiotekhnika i elektronika
RZhF	(RZFZA)	Referativnyy zhurnal. Fizika
RZhGeod	(RZGAB)	Referativnyy zhurnal. Geodeziya i aeros"yemka 🖟 🗥
RZhMekh	(RZMKA)	Referativnyy zhurnal. Mekhanika
RZhRadiot	(RZRAB)	Referativnyy zhurnal. Radiotekhnika
Sb1		Sbornik. Vsesoyuznaya konferentsiya "Optika lazerov." 1st. Leningrad, 4-8 January 1977. Tezisy dokladev. Leningrad, 1976 [sic].
Sb2		Poluprovodnikovyye materialy i ikh primeneniye. Kishinev, Shtiintsa, 1976.
Sb3		TsAGI [Tsentral'nyy aero-gidrodinamicheskiy institut]. Uchenyye zapiski, no. 3, 1976.
Sb4		Aerofizicheskiye issledovaniya, no. 6, Novosibirsk, 1976.
Sb5		Golografiya i obrabotka informatsii. Leningrad, Nauka, 1976.
Sb6		Problemy teorii plazmy. Kiyev, Naukova dumka, 1976.
Sb7		Vsesoyuznaya shkola po golografii. 8th. Materialy, Leningrad, 1976.
Sb8		Itogi nauki i tekhnika. Radiotekhnika, no. 11, 1976.
Sb9		Eksperimental'nyye metody i apparatura dlya issledovaniy turbulentnosti. Novosibirsk, 1976.
Sb10		Radio- i akusticheskaya golografiya. Leningrad, Nauka, 1976.
Sb11		Vsesoyuznaya konferentsiya po fizike elektronnykh i atomnykh stolknoveniy. Trudy. Leningrad, 1976.
Sb12		Radiotekhnika, no. 42, 1977.
Sb13		Morskiye gidrofizicheskiye issledovaniya, no. 3(74). 1976.
Sb14		Teplofizika i teplotekhnika, no. 33, 1977.
TKIT	(TKTEA)	Tekhnika kino i televideniya

TR1	AN SSSR. Fizicheskiy institut. Trudy, no. 91, 1977.
Tr2	Tbilisskiy universitet. Trudy, no. 173, 1976.
Tr3	AN SSSR. Fizicheskiy institut. Trudy, no. 90, 1976.
Tr4	Yerevanskiy politekhnicheskiy institut. Mezhvuznyy sbornik nauchnykh trudov. Stroitel'stvo i arkhitektura, no. 2, 1976.
Tr5	Moskovskoye vyssheye tekhnicheskoye uchilishche. Trudy, no. 235, 1976.
Tr6	Tallinskiy politekhnicheskiy institut. Trudy, no. 406, 1976.
Tr7	VNI kinofotoinstitut. Trudy, no. 84, 1976.
Tr8	VNII fiziko-tekhnicheskikh i radiotekhnicheskikh izmereniy. Trudy, no. 29(59), 1976.
Tr9	Trudy metrologicheskikh institutov SSSR. VNII metrologii, no. 184(244), 1975.
Tr10	Leningradskiy elektrotekhnicheskiy institut. Izvestiya, no. 194, 1976.
Trll	Leningradskiy gornyy institut. Zapiski, no. 1, 1975.
Tr12	Gosudarstvennyy gidrologicheskiy institut. Trudy, no. 237, 1976.
Tr13	Gos NI tsentr izucheniya prirodnykh resursov. Trudy, no. 2, 1976.
TVT (TVYTA)	Teplofizika vysokikh temperatur
UFN (UFNAA)	Uspekhi fizicheskikh nauk
UFZh (UFIZA)	Ukrainskiy fizicheskiy zhurnal
VMU (VMUFA)	Moskovskiy universitet. Vestnik. Seriya fizika, astronomiya
ZhETF (ZEIFA)	Zhurnal eksperimental'noy i teoreticheskoy fiziki
ZhETF P (ZFPRA)	Pis'ma v Zhurnal eksperimental'noy i teoreticheskoy fiziki
ZhNiPFik (ZNPFA)	Zhurnal nauchnoy i prikladnoy fotografii i kinematografii
ZhPMTF (ZPMFA)	Zhurnal prikladnoy mekhaniki i tekhnicheskoy fiziki
ZhPS (ZPSBA)	Zhurnal prikladnoy spektroskopii
ZhTF (ZTEFA)	Zhurnal tekhnicheskoy fiziki
ZhTF P (PZTFD)	Pis'ma v Zhurnal tekhnicheskoy fiziki

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 - 0. Affiliation not given
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- 13. Institute of Crystallography, AN SSSR, Moscow (Institut kristallografiya AN SSSR).
- 16. Moscow Engineering Physics Institute (Moskovskiy inzhenerno-fizicheskiy institut).
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- 37. Yerevan State University (Yerevanskiy gos universitet)
- 38. Kazan' Physicotechnical Institute (Kazanskiy fiziko-tekhnicheskiy institut).
- 39. Institute of Cybernetics, AN GruzSSR (Institut kibernetiki AN GruzSSR).
- 40. Tbilisi State University (Tbilisskiy gos universitet).
- 41. Rostov-on-Don State University (Rostovskiy-na-Donu gos universitet).
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- 50. Institute of Semiconductor Physics, AN LitSSR, Vilnius (Institut fiziki poluprovodnikov AN LitSSR).
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- 82. Physicotechnical Institute, AN UkrSSR (Fiziko-tekhnicheskiy institut AN UkrSSR).
- 87. Belorussian State University (Belorusskiy gos universitet).
- 90. Electrotechnical Institute of Communications (Elektrotekhnicheskiy institut svyazi).
- 92. Physicochemical Institute im Karpov (Fiziko-khimicheskiy institut im Karpova).
- 96. State Scientific Research Institute of Photochemical Planning (GOSNIIKhIMFOTOPROYEKT).
- 98. Institute of Nuclear Physics at Moscow State University (Institut yadernoy fiziki pri Moskovskom gos universitete).
- 99. Institute of Mechanics and Physics, Saratov (Institut mekhaniki i fiziki).
- 110. Leningrad Electrotechnical Institute (Leningradskiy elektrotekhnicheskiy institut).
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- 118. Moscow Physicotechnical Institute (Moskovskiy fiziko-tekhnicheskiy institut).
- 133. Central Aerohydrodynamic Institute im Zhukovskiy (Tsentral'nyy aerogidrodinamicheskiy institut im Zhukovskogo).
- 135. Central Scientific Research Institute of Communications (Tsentral'nyy NII svyazi).
- 136. Uzhgorod State University (Uzhgorodskiy gos universtitet).
- 139. All-Union Electrotechnical Institue (Vsesoyuznyy elektrotekhnicheskiy institut).
- 140. All-Union Scientific Research Institute of Physicotechnical and Radiotechnical Measurements (VNII fiziko-tekhnicheskikh i radiotekhnicheskiy izmereniy, VNIFTRI).
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- 144. All-Union Scientific Research Institute of Television and Radio Broadcasting (VNII televideniya i radioveshchaniya).
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- 231. Scientific Research Institute of Motion Pictures and Photography (NI kinofotoinstitut).
- 247. Scientific Research Institute of Electrophysical Equipment im Yefremov, Leningrad (NII elektrofizicheskoy apparatury im Yefremova).
- 255. Tallinn Polytechnical Institute (Tallinskiy politekhnicheskiy institut).
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- 299. Institute of Electronics, AN BSSR (Institut elektroniki AN BSSR).
- 334. Scientific Research Institute of Applied Physical Problems at Belorussian State University (NII prikladnykh fizicheskikh problem pri Belorusskom gos universitete).
- 362. Leningrad Pedagogical Institute (Leningradskiy pedagogicheskiy institut).
- 388. Institute of History of Natural Science and Technology, AN SSSR, Moscow (Institut istorii yestestvoznaniya i tekhniki AN SSSR).
- 394. State Hydrological Institute (Gosudarstvenyy gidrologicheskiy institut).
- 404. State Scientific Research Center for Studying Natural Resources (Gos NI tsentr izucheniya prirodnykh resursov).
- 410. Central Scientific Research Institute of Aircraft Engines (Tsentral'nyy NII aviatsionnogo motorostroyeniya).
- 415. Kishinev Polytechnic Institute (Kishinevskiy politekhnicheskiy institut).
- 418. Institute of Geological Sciences, AN KazSSR, Alma Ata (Institut teologicheskikh nauk AN KazSSR).
- 420. Institute of Silicate Chemistry im Grebenshchikov, AN SSSR, Leningrad (Institut khimii silikatov im Grebenshchikova AN SSSR).
- 421. Institute of Physics of Metals, Ural Scientific Center, AN SSSR, Sverdlovsk (Institut fiziki metallov Ural'skogo nauchnogo tsentra AN SSSR).
- 422. Institute of Technical Thermophysics, AN UkrSSR (Institut tekhnicheskoy teplofiziki AN UkrSSR).
- 423. Dnepropetrovsk Civil Engineering Institute (Dnepropetrovskiy inzhenernostroitel'nyy institut).
- 424. Voroshilovgrad Mechanical Engineering Institute (Voroshilovgradskiy mashinostroitel'nyy institut).
- 425. Institute of Virusology im Ivanovsko, Moscow (Institut virusologii im Ivanovsko).

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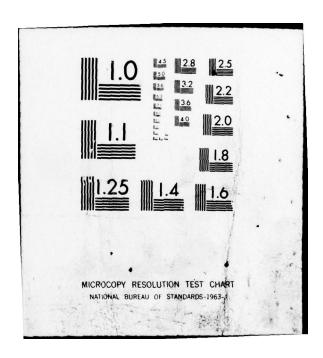
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